ABSTRACT

"**RELATIONSHIP BETWEEN MATERNAL VITAMIN D DEFICIENCY AND LOW BIRTH WEIGHT NEONATES**

Primary Objective :

To find out the Relationship between Maternal Vitamin D Deficiency and Low Birth Weight Neonates.

Secondary Objective :

To explore the role of Antenatal Vitamin D intake in prevention of Low Birth weight babies.

Low birth weight (LBW) refers to term or preterm neonates with birth weight < 2500 gr. These neonates may be small for gestational age or have intrauterine growth restriction. Mortality rate in such neonates is 40 times more than those with normal weight. Some investigations highlighted the effect of micronutrients on birth weight. Vitamin D (vit D) has a key role in fetal growth by its interaction with parathyroid hormone and Ca2 + homeostasis. Studies confirmed that insufficient prenatal and postnatal levels of vit D have great effects on poor bone mineralization which have significant association with small for gestation age (SGA). SGA births are reported more frequent in pregnancies occurring in the winter with vit D deficiency.

High prevalence of vit D deficiency (about a billion) has been seen among people all over the world.

In this study we are intended to compare the maternal vitamin D status between LBW and normal birth weight neonates.

MATERIALS AND METHODS

This study is an observational case control study involving 100 delivered women divided into two equal groups one with women with babies with weight less than 2500 gm and another group with women with babies with weight more than 2500 gm.

SAMPLE COLLECTION

Maternal vitamin D level was measured immediately two hours after birth by collecting 5ml of blood and determined by 25 OH vitamin D enzyme immunoassay method.

CONCLUSION

My study showed a significant correlation between maternal vitamin D deficiency and low birth weight baby.

This study also showed the influence of other variable like age, parity, complexion, pre pregnancy BMI, BMI at time of delivery, previous h/o low birth weight baby, diet and haemoglobin.

Thus vitamin D deficiency was found to be associated with increasing age, increasing parity, dark complexion, increasing BMI and vegetarian diet.

KEY WORDS

VITAMIN D

LOW BIRTH WEIGHT

<2500 GM

PARITY

PRE PREGNANCY BMI

COMPLEXION

MODE OF DELIVERY

HAEMOGLOBIN

DIET

PREVIOUS H/O LOW BIRTH WEIGHT BABY